REMARKS

Applicant is in receipt of the Office Action mailed November 29, 2004. Claims 1-59 remain pending in the present case. Reconsideration of the present case is earnestly requested in light of the following remarks.

Section 102 Rejections

Claims 1-59 were rejected under 35 U.S.C. 10 2(b) as being anticipated McDonald et al. (U.S. Patent No. 5,966,532, henceforth "McDonald"). Applicant respectfully disagrees.

As the Examiner is certainly aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Moreover, an 'anticipating' reference must describe all of the elements and limitations of the claim in a single reference, and enable one of skill in the field of the invention to make and use the claimed invention. *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1378-79 (Fed. Cir. 2001); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226 (Fed. Cir. 1989)." *In re Merck & Co., Inc. v. Teva Pharm. USA, Inc.*, 347 F.3d 1367, 1372 (Fed. Cir. 2003).

Claim 1 recites:

1. A memory medium comprising program instructions implementing a measurements expert system, wherein the expert system is operable to perform:

receiving a measurement task specification, wherein the measurement task specification specifies a measurement task; and

analyzing the measurement task specification; and

generating a run-time specification for the measurement task in response to said analyzing;

wherein the run-time specification is useable to configure one or more measurement devices to perform the measurement task, and wherein the run-time specification is further useable to generate a run-time which is executable to perform the measurement task using the configured one or more measurement devices.

The Office Action asserts that McDonald teaches all the features and limitations of claim 1. Applicant respectfully disagrees.

McDonald is directed to automatic selection of a graphical program template in response to user input selecting a user interface control, where the control has an associated graphical code portion or template. A graphical code generation wizard for the selected the control is invoked or initiated, and the user selects parameter values indicating the desired functionality of the graphical program, in response to which the graphical code generation wizard selects a graphical code portion or template corresponding to the control, and optionally, based on the user-configured parameters (col. 10, line 58 – col. 12, line 5).

The Office Action asserts that the Abstract discloses a memory medium comprising program instructions implementing a measurements expert system. However, Applicant notes that McDonald makes no mention of an expert system in the Abstract, nor anywhere else in the document.

The Office Action further asserts that McDonald teaches "Expert system is operable to perform [measurement application, Col. 8, Line 66]: (sic)". The Examiner is apparently equating "expert system" with "measurement application", which Applicant respectfully submits is improper. The cited passage merely states that the instrumentation control system 100 of Figure 1 may be used in various applications, including "in a data acquisition and control application, in a test and measurement application, a process control application, or a man-machine interface application". Nowhere does the cited passage mention, or even hint at, an expert system.

The Office Action further asserts that McDonald teaches the expert system being operable to perform: "Receiving a measurement task specification, wherein the measurement task specification specifies a measurement task", citing col. 9, lines 54-59. Applicant notes that the cited passage actually reads:

> The graphical software programs which perform data acquisition, analysis and/or presentation, e.g., for instrumentation control or industrial automation, are also referred to as virtual instruments. The present invention provides a system and method for automatically generating graphical program code.

Nowhere does the cited passage teach or suggest, or even mention, an expert system, nor a measurement task specification specifying a measurement task, nor an expert receiving such a measurement task specification. Applicant submits that there are numerous different approaches for "automatically generating graphical program code" that do not use expert systems, McDonald being one of them. Again, Applicant notes that McDonald fails to mention or even hint at an expert system, not only in the cited passages, but anywhere at all.

The Office Action cites the same passage in asserting that McDonald teaches "analyzing the measurement task specification", as well as "generating a run-time specification for the measurement task in response to said analyzing". Clearly, the above passage does not disclose these features and limitations.

The Office Action cites this same passage as well as col. 9, lines 3-6 in asserting that McDonald teaches that "the run-time specification is useable to configure one or more measurement devices to perform the measurement task". However, lines 3-6 simply refer to the industrial automation system of Figure 1A. Nowhere do the cited passages teach or suggest this feature.

Finally, the Office Action asserts that McDonald teaches that "the run-time specification is further usable to generate a run-time...which is executable to perform the measurement task ... using the configured one or more measurement devices". Applicant respectfully disagrees.

For example, the Examiner has apparently equated the run-time specification with a graphical program, citing col. 10, lines 11-12 of McDonald, which merely describes

various domains of use of graphical programs, e.g., created according to the method of McDonald. Applicant notes that page 29, line 21 – page 30, line 3 of the present application reads:

> In one embodiment, the run-time specification 770 may similarly comprise software objects or data structures, such as C++ objects, which may specify the run-time parameters for software and/or hardware used to implement the specified measurement task. The run-time specification 770 may comprise parameter specifications for one or more measurement primitives 408 which correspond to rudimentary measurement tasks or operations. Said another way, the run-time specification 770 may comprise a collection of primitive settings, each of which may comprise a detailed and unambiguous "recipe" for a primitive. For example, primitive settings for a digitizer, such as a National Instruments E-Series digitizer, may include: Dither (Yes, No), Polarity (Bi-polar, Uni-polar), Gain, Mode (Calibration, Differential, Non-Referenced Single-Ended, Referenced Single-Ended, Auxillary, Ghost), Generate Trigger (Yes, No), and Last Channel (Yes, No).

Thus, Applicant submits that the Examiner's asserted equivalence of the run-time specification with a graphical program is improper.

The Examiner has apparently also asserted equivalence of Applicant's run-time being executable to perform the measurement task specified by the measurement task specification using the configured one or more measurement devices with McDonald's graphical programs. Applicant refers to page 42, lines 18-22, which reads:

> In one embodiment, the task run-time 790 may include a measurements run-time 792 which may manage routing primitives and supervisors 794, MIO primitives and supervisors 796, measurements streaming primitives and supervisors 798, and measurements run-time primitives and supervisors 799. The task run-time 790 may be operable to be executed by the system to implement the specified measurement task,...

Applicant respectfully submits that the Examiner's asserted equivalence is improper, and that McDonald fails to teach or suggest this feature of claim 1.

Thus, for at least the reasons provided above, Applicant respectfully submits that claim 1 and those claims dependent therefrom are patently distinct and non-obvious over McDonald, and are thus allowable.

Independent claim 20 and 21 include similar limitations as claim 1, and so the above arguments apply with equal force to these claims. Additionally, claim 21 includes the additional limitation that the expert system is operable to "validate the measurement task specification", which Applicant submits McDonald also fails to teach.

Thus, for at least the reasons provided above, Applicant respectfully submits that claims 21 and 22, and those claims respectively dependent therefrom, are patently distinct and non-obvious over McDonald, and are thus allowable.

The Office Action asserts that McDonald teaches all the features and limitations of claims 44 and 48. Applicant respectfully disagrees.

For example, the Office Action asserts that McDonald teaches "a first software program operable to analyze a received measurement task specification", citing col. 11, lines 8-20. Applicant notes that nowhere in the cited passage is a measurement task specification described or even hinted at.

The Office Action asserts that McDonald teaches "a validation software program operable to validate the measurement task specification", but fails to cite any portion of McDonald in support of this assertion. Applicant respectfully submits that McDonald nowhere teaches or suggests, or even mentions, a measurement task specification, nor validating a measurement task specification, nor validating anything at all.

The Office Action asserts that McDonald discloses "a generation software program [graphical code generation wizard menu item] operable to generate a measurement program specification for the measurement task [control]", citing col. 11, lines 11-15. Applicant notes that the cited passage describes invocation of a graphical code generation wizard for the selected control, and that, as noted above and described with respect to Figure 2 of McDonald, the graphical code generation wizard operates to select a graphical code portion or template based on the user selected control, and optionally user-configured parameters. Nowhere does McDonald teach or suggest that

the graphical code generation wizard is operable to generate a measurement program specification for a measurement task.

The Office Action asserts that McDonald discloses "a measurement program builder, operable to: analyze the measurement program specification; configure one or more measurement devices according to the measurement program specification; and generate the measurement program, wherein the measurement program is executable to perform the measurement task", citing col. 22, line 23; col. 12, lines 8-19; and col. 9, lines 54-59, respectively. Applicant respectfully disagrees.

Applicant notes that McDonald fails to disclose or even mention a measurement program specification. Col. 22, line 23 refers to various applications for which McDonald's system and method may be used, e.g., advanced data analysis. Applicant notes that this data analysis refers to analyzing acquired data, *not* analyzing a measurement program specification.

Col. 12, lines 8-19 describe the graphical code generation wizard configuring the graphical code portion with the user specified parameter values, and specifically do *not* teach or suggest configuring one or more measurement devices according to a measurement program specification.

Thus, Applicant respectfully submits that McDonald fails to teach or suggest all the limitations of claims 44 and 48, and so for at least the reasons provided above, Applicant submits that claims 44 and 48, and those claims respectively dependent therefrom, are patentable in distinct and non-obvious over McDonald, and are thus allowable.

Removal of the 102 rejection of claims 1-59 is respectfully requested.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-57900/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

☒ Notice of Change of Address

☐ Check in the amount of $ for fees ( ).

☐ Other:

Respectfully submitted,

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